

WHAT IS CLAIMED IS:

1. A lifting device, especially an elevator or a lifting platform, having a displacement unit (1, 6, 7, 8) for at least partly displacing a load-receiving device vertically, the displacement unit (1, 6, 7, 8) comprising at least one first drive motor (1) having a first motor shaft (3), and also at least one first brake unit (2) arranged on a first brake shaft (3) and a second brake unit (2) arranged on a second brake shaft (3), and also at least one first drive element (7) rotatable about a first drive shaft (6) and intended for driving at least one first traction element (8) loaded in tension, and a second drive element (7) rotatable about a second drive shaft (6) and intended for driving at least one second traction element (8) loaded in tension, the traction elements (8) being arranged in each case at least between the drive shaft (6) and the load-receiving device, characterized in that means are provided for producing a continuously mechanical form fit, the form fit comprising at least the first and the second brake unit (2) and the first and the second drive element (7).

2. The device as claimed in claim 1, characterized in that the continuous mechanical form fit comprises the at least two traction elements (8).

3. The device as claimed in either of the aforesaid claims, characterized in that the at least two traction elements (8) are designed as chains (8).

4. The device as claimed in one of the aforesaid claims, characterized in that a second drive motor (1) having a second motor shaft (3) is provided.

5 5. The device as claimed in one of the aforesaid claims, characterized in that the means are designed for producing a motor/drive/brake shaft (3, 6, 15) connected in a continuously mechanically, form-fitting manner, the motor/drive/brake shaft (3, 6, 15) comprising at least the
10 two motor shafts (3), the two brake shafts (3) and the two drive shafts (6).

6. The device as claimed in one of the aforesaid
15 claims, characterized in that the means are designed as a coupling unit (5) for releasably connecting two of the shafts (3, 6, 15).

20 7. The device as claimed in one of the aforesaid claims, characterized in that the coupling unit (5) is designed for releasably connecting one of the motor shafts (3) to one of the other shafts (3, 6, 15).

25 8. The device as claimed in one of the aforesaid claims, characterized in that at least the two brake shafts (3, 15) are designed as a continuous, one-piece brake shaft (15).

30 9. The device as claimed in one of the aforesaid claims, characterized in that at least the two drive

shafts (6) are designed as a continuous, one-piece drive shaft (6, 15).

5 10. The device as claimed in one of the aforesaid claims, characterized in that the two drive shafts (6) and the two brake shafts (3) are designed as a continuous, one-piece drive/brake shaft (15).

10 11. The device as claimed in one of the aforesaid claims, characterized in that the two brake units (2) are arranged adjacent to one another on the continuous, one-piece brake shaft (15).

15 12. The device as claimed in one of the aforesaid claims, characterized in that the two brake units (2) adjacent to one another are arranged between the two drive elements (7) on the continuous, one-piece drive/brake
20 shaft (15).

 13. The device as claimed in one of the aforesaid claims, characterized in that a shaft diameter which is
25 greater than the diameter(s) of the other shaft regions is provided in the region of the brake units (2).

 14. The device as claimed in one of the aforesaid
30 claims, characterized in that, in the region of the two brake units (2) adjacent to one another, the continuous, one-piece drive/brake shaft (15) has a diameter which is greater than the diameter in the region of the drive elements (7).

15. The device as claimed in one of the aforesaid
claims, characterized in that at least one traction
5 element (8) is arranged between two bearing points (10) of
one of the shafts (3, 6).

16. The device as claimed in one of the aforesaid
10 claims, characterized in that at least one angle sensor
(16) is provided for detecting an angle parameter of one
of the shafts (3, 6).

17. The device as claimed in one of the aforesaid
15 claims, characterized in that the angle sensor (16) is
designed as a shaft encoder (16) for detecting the angle
parameter of one of the drive motors (1).

18. The device as claimed in one of the aforesaid
20 claims, characterized in that at least one detection unit
(16) is provided for detecting a wear parameter of at
least one of the traction elements (8).

19. The device as claimed in one of the aforesaid
25 claims, characterized in that the wear parameter is a
length, a fracture and/or a stress of the traction element
(8).

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